

## ABSTRACT

The invention provides four (4) methods to reduce stalk shear in a corn head row unit that utilizes a non-variable or dependent drive system. The four methods described include altering the gearbox ratio, increasing the lengths of the fluted portion of the stalk roll, increasing stalk roll diameter or reducing the size of the gathering chain drive sprocket. The invention allows for a more balanced application of multi directional energy to be applied to the corn plant. The resultant effect is to reduce stalk shear which reduces trash intake to the harvester. This novel idea provides the first means and method to which genetically improved taller and healthier corn plants can be harvested with minimal amounts of material other than ears ultimately being transferred to the threshing unit.